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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,901	10/29/2003	Cesar H. Proano	005513.P015	9235
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EXAMINER				
RAHMJOO, MANUCHER				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/697,901

**Applicant(s)**

PROANO ET AL.

**Examiner**

MIKE RAHMJOO

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Newly submitted claims 1- 15 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

As per applicant's newly amended claim 1 applicant recites 1st and 2<sup>nd</sup> contacting portions of a hand. Said two portions as further evident are drawn to different embodiments as evident through fig. 1 and 4 and are different to the invention as formerly claimed prior to amendment.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 1- 15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16- 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bird et al (US Patent 6108438), hereinafter, Bird.

As per claims 16 and 26 Bird teaches an insulator having a bottom surface corresponding to for example fig. 3 the bottom surface of block 25;

a plurality of pixel array coupled to the insulator corresponding to for example fig. 3 pixel array 33 coupled to the bottom surface of the insulator;

means for sensing the capacitance (i.e., claim 1 and the capacitive sensing elements) and a plurality of storage capacitors, each of the plurality of storage capacitors coupled to a corresponding one of the plurality of electrodes corresponding to for example fig. 3 and 5 and cap. 35 and 51;

means for driving a first charge (i.e., fig. 1- 3 and the diodes used) from a conductive structure (i.e., charge driven through layer 25 of fig. 3) adjacent to the pixel array (i.e., pixel array 33 of fig. 3) through a portion of a hand in contact with the conductive structure and the finger into at least one of the plurality of storage capacitors (i.e., fig. 3 storage capacitors 35); the conductive structure is exposed for physical contact with a body part of a user (e.g., col. 6 lines 6- 10 wherein physical contact with the surface 26 corresponding to conductive structure and individual finger portions at finger surface 37 corresponding to body part is made). The basis of having said conductive layer (i.e., fig. 3 layer 25) along with array of sense elements (i.e., fig. 3 sense elements 12) is to provide means for producing fingerprint images. The apparatus of Bird performs the very same function which is contact of the fingerprint ridges made with the conductive layer as further outlined in col. 6 lines 23- 31 to obtain three dimensional profile of the fingerprint. Said functionality is further

obviated by comparing the fig. 1 of applicant with fig. 3 of Bird which depicts the similarities thereof. A one to one comparison of the drawings would produce as follows: finger 110 of applicant as body part equivalent of fingerprint 36 of Bird; insulator 120 of applicant as equivalent of insulating layer 25 of Bird; electrodes 130, 132, 134 of applicant as equivalent of electrodes 33 of Bird; the sensing circuit 180 as equivalent of the sensing circuit of fig. 2 of Bird; Substrate 160 (providing support) of applicant as equivalent of insulator 15 of Bird.

As per claim 17 Bird teaches the first charge is driven through the portion of the hand in contact with the conductive structure and the finger using a first pulse corresponding to for example column 6 lines 5-35 wherein the diodes are used to charge and discharge the capacitance formed between the finger portion and the sense electrode.

As per claim 18 Bird teaches the first pulse has a negative voltage corresponding to for example column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 19 Bird teaches the first charge is driven into a first contact of the storage capacitor coupled to a corresponding electrode corresponding to for example fig. 3 capacitors 35 and the corresponding electrodes.

As per claims 20 and 27 Bird teaches means for driving a second charge (i.e., fig. 1-3 and the diodes used) into a second contact of the storage capacitor corresponding to for example fig. 3, 5 and 7 and column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 21 Bird teaches the second charge is driven directly into the storage capacitor using a pulse corresponding to for example columns 7 and 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 22 Bird teaches the pulse has a negative voltage corresponding to for example column 10 lines 10- 35 for the negative selection pulses as corresponding to the first or second generation pulses.

As per claim 23 Bird teaches driving a second charge into a second contact of the storage capacitor, wherein the second charge is driven directly into the storage capacitor using a second pulse corresponding to for example column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses which is made through capacitors 35.

As per claim 24 Bird teaches the first pulse has a positive voltage column 10 lines 10- 35 for the positive selection pulses as corresponding to the first or second generation pulses.

As per claim 25 Bird teaches the first pulse has a voltage difference in the approximate range of 0.5V to IV corresponding to for example column 8 lines 5- 67 through column 9 lines 1- 37 wherein the charge or voltage difference is about 1 volt (or higher) which is in accordance with applicant's disclosure in [0034].

***Response to Arguments***

Applicant's arguments filed 06/16/08 have been fully considered but they are not persuasive.

In response to applicant's remarks on page 9 wherein applicant recites "independent claim 16 is distinct from Bird et al. since in the amended claim 16, "a first charge" is driven from "a conductive structure adjacent to the pixel array, through a portion of a hand in contact with the conductive structure and the finger, into at least one of the plurality of storage capacitors," whereas in Bird et al. the pulse ~~is not applied~~ did not go through the user's finger as described in the amended claim", examiner would point to the rejection made of the record which recites "Bird is deplete with teachings of a first signal generator coupled to the conductive structure, wherein the first signal generator is operable to drive a charge through the conductive structure to the body part see for example column 6 line 51 (i.e., potential applied); column 6 line 45- 50 (i.e., pulse generating circuit to drive to potential levels); column 8 line 55 (i.e., signal applied); column 9 line 47 (i.e., application of voltage pulses). The basic and well known requirement of such a device as in Bird is to drive a charge to levels other than virtual earth voltage through a medium (i.e., a conductive medium) to the body to attain a fingerprint image as described in the background of Bird in column 1 lines 25- 35. It is therefore obviated that lack of said charge or a signal would produce no images. Said feature as admitted by applicant in [0036] is well known in the art."

Applicant on the other hand simply recites the underlined portion of the remarks without offering any reasoning and therefore applicant's arguments fail to comply with

37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5963679 teaches a fingerprint sensor includes an array of electric field sensing electrodes, a dielectric layer on the sensing electrodes with the dielectric layer for receiving a finger adjacent thereto, and a driver for applying an electric field drive signal to the sensing electrodes and adjacent portions of the finger so that the sensing electrodes produce a fingerprint image output signal. In one embodiment of the invention, the driver provides a coherent drive signal for the array. A respective shield electrode may be associated with each of the electric field sensing electrodes for shielding each electric field sensing electrode from adjacent sensing electrodes. Each shield electrode may be actively driven for further shielding. The fingerprint sensor preferably further includes a synchronous demodulator and contrast enhancer for more accurate output image signals. The fingerprint sensor may be effectively used to control access to a computer workstation. Method aspects are also disclosed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP



§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

September 05, 2008

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624